DEPARTMENT OF THE AIR FORCE
DETACHMENT 3, AIR FORCE INSTITUTE FOR OPERATIONAL HEALTH
(AFIOH) (AFMC)
APO AP 96368-5213

12 Apr 04

MEMORANDUM FOR 8 MDOS/SGOAB
APO AP 96264-2021

FROM: Det 3, AFIOH/CDR
Unit 5213
APO AP 96368

SUBJECT: Consultative Letter (CL), IOH-DO-BR-CL-2003-0026, Radio Frequency Radiation (RFR) Program Review, Kunsan AB, ROK

1. Introduction: This CL documents a review of your RFR program that was conducted from 10 - 15 Dec 03. AFI 48-9, *Radio Frequency Radiation Safety Program*, directs the Bioenvironmental Engineering Flight (BEF) to manage their installation's RFR safety program. As part of this program, BEF maintains an up-to-date inventory of RFR emitters, conducts initial and periodic assessments of RFR emissions, and assists unit commanders in the development of RFR safety awareness training programs.

2. Scope: The following Kunsan AB workplaces were visited as requested by the BEF office: Radio Maintenance, Wide Band Maintenance, Precision Guided Munitions, 43rd Air Defense Artillery Echo Battery, and 43rd Defense Artillery Foxtrot Battery. In addition to workplace visits, BEF inventories, RFR evaluations, and RFR safety awareness training plans were reviewed. For each workplace, the following items were accomplished as part of this RFR safety program review.

a. Review and update of RFR emitter inventory records (AF Forms 2759).
b. Review of RFR training.
c. Survey of new Radio Frequency (RF) emitters and/or completion of hazard distance calculations.

Note that RFR survey meter information is contained in attachment 1.

3. Personnel Contacted:

Name	Office Symbol	Duty Title
Maj Ronald Dell	8 MDOS/SGOAB	Bioenvironmental Engineering Element Commander
TSgt Yvette Yliniemi	8 MDOS/SGOAB	Bioenvironmental Engineering Technician
CW2 Weston	Echo Battery	Systems Maintenance Technician
CW2 Olsen	Foxtrot Battery	Systems Maintenance Technician
TSgt Sheridan Webster	8 CS/SCMG	NCOIC, Radio Maintenance
MSgt Mark Morgan	8 MXS/MXMWPM	Superintendent Precision Guided Munitions (PGM)
SSgt Timothy Boldt	8 MXS/MXMWPM	NCOIC, PGM Support
SrA Ferrell	8 MXS/MXMWPM	PGM Crew Member
SSgt Eric Allec	8 CS/SCMGW	NCOIC, Wide Band Maintenance

4. Findings:

a. Radio Maintenance. The RF emitter inventory was updated and hazard distance calculations were completed. RF emitter forms are included in attachment 2. RFR measurements were made in assessable areas by transmitter cabinets, transmission lines, and dummy load devices (Termaline coaxial resistors). No RFR leakage was noted above 0.1 milliwatts per centimeter squared (mW/cm^2). Antennas are elevated and inaccessible to personnel other than antenna maintenance personnel.

b. Wide Band Maintenance. This shop maintains three microwave digital radio systems. One is located outside building 919 and two are located at the Okmasan site. RFR measurements were made in assessable areas by the transmitter cabinet located at building 919 and along the transmission line (traveling wave tube) leading to the antenna. RFR leakage measurements were below 0.1 mW/cm^2. BEF RF emitter forms were current for this shop. RFR measurement information was therefore documented on existing forms. The Okmasan site was not visited during this review.

c. Precision Guided Munitions. This shop uses an AN/GJM-65 missile test set to evaluate AGM-130 guided missiles. RFR measurements were made during the evaluation of an AGM-130 guided missile. A test coupler (RF hat) is used to minimize potential RFR exposure and is required by T.O. 33D7-77-81-1. RFR measurements ranged from less than 0.1 - 1.8 mW/cm^2, which is well below the permissible exposure limit of 10 mW/cm2 for controlled areas. Attachment 3 contains RF emitter information and details on RFR leakage measurements.

d. 43rd Air Defense Artillery Echo & Foxtrot Batteries. The Echo and Foxtrot Batteries maintain and operate the Patriot Missile Air Defense System that utilizes a phased-array radar (AN/MPQ-65). The Interrogator set (AN/TPX-46(v)7) is a transmitter/receiver, Identification Friend or Foe (IFF) system, and an integral part of the Patriot Missile Air Defense System. RFR measurements were made at both sites during low and high power operations. The measured RFR hazard distance was significantly less than the specified distance in Army T.M. 9-1430-601-10-1. Note that the phased-array radar can be set in a number of classified modes that can significant change the potential hazard distance. Therefore, the area within hazard distances specified in T.M. 9-1430-601-10-1 is controlled. Updated RF emitter and survey information is located in attachments 4 and 5 for the Echo and Foxtrot Batteries.

5. Recommendations and Conclusions: Kunsan AB RFR safety program records are up-to-date and meet AFI requirements. RFR emitter inventories, evaluations, and training indicate proper oversight of base RFR safety and awareness concerning potentially exposed personnel. Recommend that the Bioenvironmental Engineering Element continue appropriate surveillance of work areas with RF emitters and assist each supervisor with RFR awareness training programs.

6. If you have any questions, please contact me at DSN 634-2636 or via e-mail at bruce.goplin@kadena.af.mil.

Bruce A. Goplin

BRUCE A. GOPLIN, Capt, USAF, BSC
Chief, Radiation Services Branch

5 Atch:
1. Survey Equipment Information
2. Radio Maintenance RF Emitter Form
3. PGM RF Emitter Form
4. Echo Battery RF Emitter Form
5. Foxtrot Battery RF Emitter Form

Survey Equipment Information

Survey meter type: Narda Broadband Isotropic Survey Monitor

Model number: 8716

Serial number: 11036

Calibration date: 22 Feb 03

Probes:

Narda Isotropic Conformal E-Field Probe (0.3 – 40 GHz)

Model: 8722B
Calibration date: 22 Feb 03

Narda Isotropic E-Field Probe (0.3 – 1000 MHz)

Model: 8760
Serial number: 08008
Calibration date: 22 Feb 03

Narda Broadband leakage E-Field Probe (2- 10 GHz)

Model: 8760
Serial number: 08008
Calibration date: 22 Feb 03

RADIOFREQUENCY EMITTER SURVEY	DATE (DD MMM YY) 10 Dec 03	WORKPLACE IDENTIFIER	0608-CORR-211A
		BASE: Kunsan AB	ORGANIZATION: 8 CS
		WORKPLACE: Radio Maintenance	
		BLDG NO/LOCATION: 952	ROOM/AREA:

NAME OF CONTACT	GRADE	POSITION	ORGANIZATION/OFFICE SYMBOL	DUTY PHONE
Webster	TSgt	NCOIC	8 CS/SCMG	782-4919

HAZARD EVALUATION AND CONTROL DATA

NOMENCLATURE	AN/GRC-171	AN/GRC-171	AN/GRC-171	AN/GRC-171
DESCRIPTION	UHF Transcievers	UHF Transcievers	UHF Transcievers	UHF Transcievers
LOCATION OF EMITTERS	Bldg 2829	Bldg 1305	Bldg 911	Bldg 950
QUANTITY	2	1	1	2
FREQUENCY (MHZ)	225-399.975	225-399.975	225-399.975	225-399.975
PULSE WIDTH (microsec.)	CW	CW	CW	CW
PULSE REPETITION FREQUENCY (pps)	NA	NA	NA	NA
PEAK POWER (KW)	0.025	0.025	0.025	0.025
ANTENNA CODE				
ANTENNA SIZE (ft.) (hor./ver.)	2.1/1.5	2.1/1.5	2.1/1.5	2.1/1.5
ANTENNA GAIN (dB)	0.3	0.3	0.3	0.3
SCANNING CODE	F	F	F	F
SCAN RATE (rpm)	NA	NA	NA	NA
PERMISSIBLE EXPOSURE LIMIT (mW/cm2)	cont - 1.0 uncont - 0.2	cont - 1.0 uncont - 0.2	cont - 1.0 uncont - 0.2	cont - 1.0 uncont - 0.2
ESTIMATED HAZARD DISTANCE (ft)	controlled - 1.5 ft uncont. - 3.4 ft	controlled - 1.5 ft uncont. - 3.4 ft	controlled - 1.5 ft uncont. - 3.4 ft	controlled - 1.5 ft uncont. - 3.4 ft
HAZARD CODE(S)	IH	IH	IH	IH
HAZARD CONTROL CODE(S)	NR	NR	NR	NR
HAZARD DISTANCE MEASUREMENTS (ft)	Not Required	Not Required	Not Required	Not Required

PREPARED BY (Name, Grade,AFSC)	REVIEWED BY (Name, Grade, AFSC)
BRUCE A. GOPLIN, Capt, USAF, 43Y3	

PERIODIC CHECKS				
CHECK FREQUENCY	☑ ANNUALLY	☐ QUARTERLY	☐ OTHER _____	
DATE (DD MMM YY)	SIGNS CURRENT	PROCEDURES ADEQUATE	OTHER	CHECKED BY

SYSTEM DIAGRAM, CALCULATIONS, AND MEASUREMENTS

AN/GRC-171

f = 225-399.975 MHz; PEL = 1.0 mW/cm^2 $_{\text{Controlled}}$ 0.2 mW/cm^2 $_{\text{uncontrolled}}$

P_a = average power (watts) = 25 w

G_{abs} = absolute gain = $10^{G/10}$ = $10^{.03}$ = 1.07 dB

Hazard distance in meters = $[(p_a \times g_n) / (40 \times pi \times PEL)]^{½}$

= 0.5 meters (controlled) 1.0 meters (uncontrolled)

= 1.5 feet (controlled) 3.4 feet (uncontrolled)

Hazard Control Codes

AS-Audible Signal; BA-Rope or Chain Barrier; CA-Check RF Absorbers; CO-Constant Observation; CW-Check Waveguides; FE-Fence; FL-Flashing Lights; LF-Locked Fence; SC-Special Coordination; SO-SOP; WS-Warning Sign; NR-No Control Required; OM-Other

RADIOFREQUENCY EMITTER SURVEY	DATE (DD MMM YY) 10 Dec 03	WORKPLACE IDENTIFIER	0608-CORR-211A
		BASE: Kunsan AB	ORGANIZATION: 8 CS
		WORKPLACE: Radio Maintenance	
		BLDG NO/LOCATION: 952	ROOM/AREA:

NAME OF CONTACT	GRADE	POSITION	ORGANIZATION/OFFICE SYMBOL	DUTY PHONE
Webster	TSgt	NCOIC	8 CS/SCMG	782-4919

HAZARD EVALUATION AND CONTROL DATA

NOMENCLATURE	AN/GRC-171	AN/GRC-171	AN/GRC-211	AN/GRC-171
DESCRIPTION	UHF Transcievers	UHF Transcievers	VHF Transcievers	VHF Transcievers
LOCATION OF EMITTERS	Bldg 2548	Bldg 902	Bldg 2829	Bldg 1305
QUANTITY	1	1	3	2
FREQUENCY (MHZ)	225-399.975	225-399.975	116 - 149.9	116 - 149.9
PULSE WIDTH (microsec.)	CW	CW	CW	CW
PULSE REPETITION FREQUENCY (pps)	NA	NA	NA	NA
PEAK POWER (KW)	0.025	0.025	0.025	0.025
ANTENNA CODE				
ANTENNA SIZE (ft.) (hor./ver.)	2.1/1.5	2.1/1.5	.08/5	.08/5
ANTENNA GAIN (dB)	0.3	0.3	0.3	0.3
SCANNING CODE	F	F	F	F
SCAN RATE (rpm)	NA	NA	NA	NA
PERMISSIBLE EXPOSURE LIMIT (mW/cm2)	cont - 1.0 uncont - 0.2	cont - 1.0 uncont - 0.2	cont - 1.0 uncont - 0.2	cont - 1.0 uncont - 0.2
ESTIMATED HAZARD DISTANCE (ft)	controlled - 1.5 ft uncont. - 3.4 ft	controlled - 1.5 ft uncont. - 3.4 ft	controlled - 1.5 ft uncont. - 3.4 ft	controlled - 1.5 ft uncont. - 3.4 ft
HAZARD CODE(S)	IH	IH	IH	IH
HAZARD CONTROL CODE(S)	NR	NR	NR	NR
HAZARD DISTANCE MEASUREMENTS (ft)	Not Required	Not Required	Not Required	Not Required

PREPARED BY (Name, Grade,AFSC)	REVIEWED BY (Name, Grade, AFSC)
BRUCE A. GOPLIN, Capt, USAF, 43Y3	

PERIODIC CHECKS				
CHECK FREQUENCY	☑ ANNUALLY	☐ QUARTERLY	☐ OTHER _____	
DATE (DD MMM YY)	SIGNS CURRENT	PROCEDURES ADEQUATE	OTHER	CHECKED BY

SYSTEM DIAGRAM, CALCULATIONS, AND MEASUREMENTS

AN/GRC-171

AN/GRC-171

f = 116 - 399.975 MHz; PEL = 1.0 mW/cm^2 $_{Controlled}$ 0.2 mW/cm^2 $_{uncontrolled}$

P_a = average power (watts) = 25 w

G_{abs} = absolute gain = $10^{G/10}$ = $10^{0.03}$ = 1.07 dB

Hazard distance in meters = $[(p_a \times g_n) / (40 \times pi \times PEL)]^{½}$

= 0.5 meters (controlled) 1.0 meters (uncontrolled)

= 1.5 feet (controlled) 3.4 feet (uncontrolled)

AN/GRC-211

f = 116 – 149.9 MHz; PEL = 1.0 mW/cm^2 $_{Controlled}$ 0.2 mW/cm^2 $_{uncontrolled}$

P_a = average power (watts) = 25 w

G_{abs} = absolute gain = $10^{G/10}$ = $10^{00.3}$ = 1.07 dB

= 0.5 meters (controlled) 1.0 meters (uncontrolled)

= 1.5 feet (controlled) 3.4 feet (uncontrolled)

Hazard Control Codes

AS-Audible Signal; BA-Rope or Chain Barrier; CA-Check RF Absorbers; CO-Constant Observation; CW-Check Waveguides; FE-Fence; FL-Flashing Lights; LF-Locked Fence; SC-Special Coordination; SO-SOP; WS-Warning Sign; NR-No Control Required; OM-Other

RADIOFREQUENCY EMITTER SURVEY	DATE (DD MMM YY) 10 Dec 03	WORKPLACE IDENTIFIER 0608-CORR-211A	
		BASE Kunsan AB	ORGANIZATION 8 CS
		WORKPLACE Radio Maintenance	
		BLDG NO/LOCATION 952	ROOM/AREA

NAME OF CONTACT	GRADE	POSITION	ORGANIZATION/OFFICE SYMBOL	DUTY PHONE
Webster	TSgt	NCOIC	8 CS/SCMG	782-4919

HAZARD EVALUATION AND CONTROL DATA

NOMENCLATURE	AN/GRC-211	AN/GRC-211	AN/GRC-211	AN/VRC-83
DESCRIPTION	VHF Transcievers	VHF Transcievers	VHF Transcievers	VHF/UHF Transciever
LOCATION OF EMITTERS	Bldg 902	Bldg 950	Bldg 2548	Bldg 1305
QUANTITY	1	2	1	1
FREQUENCY (MHZ)	116 -149.9	116 - 149.9	116 - 149.9	116 - 149.9 / 225 - 399.975
PULSE WIDTH (microsec.)	CW	CW	CW	CW
PULSE REPETITION FREQUENCY (pps)	NA	NA	NA	NA
PEAK POWER (KW)	0.025	0.025	0.025	0.03
ANTENNA CODE				
ANTENNA SIZE (ft.) (hor./ver.)	.08/5	.08/5	.08/5	VHF - .08/5 UHF - 2.1/1.5
ANTENNA GAIN (dB)	0.3	0.3	0.3	0.3
SCANNING CODE	F	F	F	F
SCAN RATE (rpm)	NA	NA	NA	NA
PERMISSIBLE EXPOSURE LIMIT (mW/cm2)	cont - 1.0 uncont - 0.2	cont - 1.0 uncont - 0.2	cont - 1.0 uncont - 0.2	cont - 1.0 uncont - 0.2
ESTIMATED HAZARD DISTANCE (ft)	controlled - 1.5 ft uncont. - 3.4 ft	controlled - 1.5 ft uncont. - 3.4 ft	controlled - 1.5 ft uncont. - 3.4 ft	controlled - 1.7 ft uncont. - 3.7ft
HAZARD CODE(S)	IH	IH	IH	IH
HAZARD CONTROL CODE(S)	NR	NR	NR	NR
HAZARD DISTANCE MEASUREMENTS (ft)	Not Required	Not Required	Not Required	Not Required

PREPARED BY (Name, Grade,AFSC)	REVIEWED BY (Name, Grade, AFSC)
BRUCE A. GOPLIN, Capt, USAF, 43Y3	

PERIODIC CHECKS				
CHECK FREQUENCY	☑ ANNUALLY	☐ QUARTERLY	☐ OTHER _____	
DATE (DD MMM YY)	SIGNS CURRENT	PROCEDURES ADEQUATE	OTHER	CHECKED BY

SYSTEM DIAGRAM, CALCULATIONS, AND MEASUREMENTS

AN/VRC-83

AN/GRC-211

f = 116 – 149.9 MHz; PEL = 1.0 mW/cm^2 $_{Controlled}$ 0.2 mW/cm^2 $_{uncontrolled}$

P_a = average power (watts) = 25 w

G_{abs} = absolute gain = $10^{G/10}$ = $10^{0.03}$ = 1.07 dB

Hazard distance in meters = $[(p_a \times g_n) / (40 \times pi \times PEL)]^{½}$

= 0.5 meters (controlled) 1 meters (uncontrolled)

= 1.5 feet (controlled) 3.4 feet (uncontrolled)

AN/VRC-83

f = 116 – 149.9/ 225 –399.975 MHz; PEL = 1.0 mW/cm^2 $_{Controlled}$ 0.2 mW/cm^2 $_{uncontrolled}$

P_a = average power (watts) = 30 w

G_{abs} = absolute gain = $10^{G/10}$ = $10^{0.03}$ = 1.07 dB

= 0.5 meters (controlled) 1.1 meters (uncontrolled)

= 1.7 feet (controlled) 3.7 feet (uncontrolled)

Hazard Control Codes

AS-Audible Signal; BA-Rope or Chain Barrier; CA-Check RF Absorbers; CO-Constant Observation; CW-Check Waveguides; FE-Fence; FL-Flashing Lights; LF-Locked Fence; SC-Special Coordination; SO-SOP; WS-Warning Sign; NR-No Control Required; OM-Other

RADIOFREQUENCY EMITTER SURVEY	DATE (DD MMM YY) 10 Dec 03	WORKPLACE IDENTIFIER 0608-CORR-211A	
		BASE Kunsan AB	ORGANIZATION 8 CS
		WORKPLACE Radio Maintenance	
		BLDG NO/LOCATION 952	ROOM/AREA

NAME OF CONTACT	GRADE	POSITION	ORGANIZATION/OFFICE SYMBOL	DUTY PHONE
Webster	TSgt	NCOIC	8 CS/SCMG	782-4919

HAZARD EVALUATION AND CONTROL DATA

NOMENCLATURE	AN/VRC-83	AN/GRT-21	AN/GRT-21	AN/GRT-22
DESCRIPTION	VHF/UHF Transcievers	VHF Transcievers	VHF Transcievers	UHF Transciever
LOCATION OF EMITTERS	Bldg 915	Bldg 952	Bldg 2829	Bldg 952
QUANTITY	1	9	1	25
FREQUENCY (MHZ)	116 -149.9/ 225 - 399.975	116 - 149.9	116 - 149.9	225 - 399.975
PULSE WIDTH (microsec.)	CW	CW	CW	CW
PULSE REPETITION FREQUENCY (pps)	NA	NA	NA	NA
PEAK POWER (KW)	0.03	0.01 - 0.05	0.01 - 0.05	0.01 - 0.05
ANTENNA CODE				
ANTENNA SIZE (ft.) (hor./ver.)	VHF - .08/5 UHF - 2.1/1.5	.05/6	.05/6	0.05/6
ANTENNA GAIN (dB)	0.3	1.5	1.5	1.5
SCANNING CODE	F	F	F	F
SCAN RATE (rpm)	NA	NA	NA	NA
PERMISSIBLE EXPOSURE LIMIT (mW/cm2)	cont - 1.0 uncont - 0.2	cont - 1.0 uncont - 0.2	cont - 1.0 uncont - 0.2	cont - 1.0 uncont - 0.2
ESTIMATED HAZARD DISTANCE (ft)	controlled - 1.7 ft uncont. - 5.5 ft	controlled - 2.1 ft uncont. - 4.6 ft	controlled - 2.5 ft uncont. - 5.5 ft	controlled - 2.5 ft uncont. - 5.5 ft
HAZARD CODE(S)	IH	IH	IH	IH
HAZARD CONTROL CODE(S)	NR	NR	NR	NR
HAZARD DISTANCE MEASUREMENTS (ft)	Not Required	Not Required	Not Required	Not Required

PREPARED BY (Name, Grade,AFSC)	REVIEWED BY (Name, Grade, AFSC)
BRUCE A. GOPLIN, Capt, USAF, 43Y3	

PERIODIC CHECKS				
CHECK FREQUENCY	☑ ANNUALLY	☐ QUARTERLY	☐ OTHER _____	
DATE (DD MMM YY)	SIGNS CURRENT	PROCEDURES ADEQUATE	OTHER	CHECKED BY

SYSTEM DIAGRAM, CALCULATIONS, AND MEASUREMENTS

AN/VRC-83

AN/GRT-22

AN/VRC-83

f = 116 – 149.9/ 225 –399.975 MHz; PEL = 1.0 mW/cm^2 $_{Controlled}$ 0.2 mW/cm^2 $_{uncontrolled}$

P_a = average power (watts) = 30 w; G_{abs} = absolute gain = $10^{G/10} = 10^{0.03}$ = 1.07 dB

Hazard distance in meters = $[(p_a \times g_n) / (40 \times pi \times PEL)]^{½}$

= 0.5 meters (controlled) 1.1 meters (uncontrolled)

= 1.7 feet (controlled) 3.7 feet (uncontrolled)

AN/GRT-21

= 0.7 meters (controlled) 1.7 meters (uncontrolled)

= 2.5 feet (controlled) 5.5 feet (uncontrolled)

AN/GRT-22

= 0.7 meters (controlled) 1.7 meters (uncontrolled)

= 2.5 feet (controlled) 5.5 feet (uncontrolled)

Hazard Control Codes

AS-Audible Signal; BA-Rope or Chain Barrier; CA-Check RF Absorbers; CO-Constant Observation; CW-Check Waveguides; FE-Fence; FL-Flashing Lights; LF-Locked Fence; SC-Special Coordination; SO-SOP; WS-Warning Sign; NR-No Control Required; OM-Other

RADIOFREQUENCY EMITTER SURVEY	DATE (DD MMM YY) 10 Dec 03	WORKPLACE IDENTIFIER 0608-CORR-211A	
		BASE Kunsan AB	ORGANIZATION 8 CS
		WORKPLACE Radio Maintenance	
		BLDG NO/LOCATION 952	ROOM/AREA

NAME OF CONTACT	GRADE	POSITION	ORGANIZATION/OFFICE SYMBOL	DUTY PHONE
Webster	TSgt	NCOIC	8 CS/SCMG	782-4919

HAZARD EVALUATION AND CONTROL DATA

NOMENCLATURE	AN/GRT-22	AN/GRT-22	AN/GRC-238	AN/GRC-238
DESCRIPTION	UHF Transciever	UHF Transciever	VHF/UHF Transcievers	VHF/UHF Transcievers
LOCATION OF EMITTERS	Bldg 2829	Bldg 1305	Bldg 1305	Bldg 911
QUANTITY	1	2	2	1
FREQUENCY (MHZ)	225 -399.975	225 -399.975	30-88/136-174 403-470	30-88/136-174 403-470
PULSE WIDTH (microsec.)	CW	CW	CW	CW
PULSE REPETITION FREQUENCY (pps)	NA	NA	NA	NA
PEAK POWER (KW)	0.01 - 0.05	0.01 - 0.05	0.005-0.04	0.005-0.04
ANTENNA CODE			WH	WH
ANTENNA SIZE (ft.) (hor./ver.)	.05/6	.05/6	1.5, 3, 4	1.5, 3, 4
ANTENNA GAIN (dB)	1.5	1.5	0	0
SCANNING CODE	F	F	F	F
SCAN RATE (rpm)	NA	NA	NA	NA
PERMISSIBLE EXPOSURE LIMIT (mW/cm2)	cont - 1.0 uncont - 0.2	cont - 1.0 uncont - 0.2	cont - 1.0 uncont - 0.2	cont - 1.0 uncont - 0.2
ESTIMATED HAZARD DISTANCE (ft)	controlled - 2.5 ft uncont. - 5.5 ft	controlled - 2.5 ft uncont. - 5.5 ft	controlled - 1.9 ft uncont. - 4.1 ft	controlled - 1.9 ft uncont. - 4.1 ft
HAZARD CODE(S)	IH	IH	IH	IH
HAZARD CONTROL CODE(S)	NR	NR	NR	NR
HAZARD DISTANCE MEASUREMENTS (ft)	Not Required	Not Required	Not Required	Not Required

PREPARED BY (Name, Grade,AFSC)	REVIEWED BY (Name, Grade, AFSC)
BRUCE A. GOPLIN, Capt, USAF, 43Y3	

PERIODIC CHECKS				
CHECK FREQUENCY	☑ ANNUALLY	☐ QUARTERLY	☐ OTHER _____	
DATE (DD MMM YY)	SIGNS CURRENT	PROCEDURES ADEQUATE	OTHER	CHECKED BY

SYSTEM DIAGRAM, CALCULATIONS, AND MEASUREMENTS

AN/GRT-22

Termaline Coaxial Resistor (Dummy load device)

Hazard distance in meters = $[(p_a \times g_n) / (40 \times pi \times PEL)]^{½}$

Hazard distance in feet = $[[(p_a \times g_n) / (40 \times pi \times PEL)]^{½}] \times 3.28$

P_a = average power (watts)

G_{abs} = absolute gain = $10^{G/10}$

PEL = Permissible Exposure Limit in mW/cm^2

Hazard Control Codes

AS-Audible Signal; BA-Rope or Chain Barrier; CA-Check RF Absorbers; CO-Constant Observation; CW-Check Waveguides; FE-Fence; FL-Flashing Lights; LF-Locked Fence; SC-Special Coordination; SO-SOP; WS-Warning Sign; NR-No Control Required; OM-Other

RADIOFREQUENCY EMITTER SURVEY	DATE (DD MMM YY) 10 Dec 03	WORKPLACE IDENTIFIER 0608-CORR-211A	
		BASE Kunsan AB	ORGANIZATION 8 CS
		WORKPLACE Radio Maintenance	
		BLDG NO/LOCATION 952	ROOM/AREA

NAME OF CONTACT	GRADE	POSITION	ORGANIZATION/OFFICE SYMBOL	DUTY PHONE
Webster	TSgt	NCOIC	8 CS/SCMG	782-4919

HAZARD EVALUATION AND CONTROL DATA

NOMENCLATURE	AN/PRC-113	AN/PRC-113	AN/VRC-119	AN/TRC-176
DESCRIPTION	VHF/UHF Transciever	VHF/UHF Transciever	HF Transcievers	VHF/UHF Transcievers
LOCATION OF EMITTERS	Bldg 2829	Bldg 954	Bldg 952	Bldg 911
QUANTITY	1	2	1	1
FREQUENCY (MHZ)	116 - 149.9/225 - 399.975	116 - 149.9/225 - 399.975	1.6 - 29.999	116 - 149.9/225 - 399.975
PULSE WIDTH (microsec.)	CW	CW	CW	CW
PULSE REPETITION FREQUENCY (pps)	NA	NA	NA	NA
PEAK POWER (KW)	0.01	0.01	0.1 - 0.5	0.01
ANTENNA CODE	WH	WH		
ANTENNA SIZE (ft.) (hor./ver.)	3	3	75/0.1	VHF - 2.1/1.5 UHF - 0.8/5
ANTENNA GAIN (dB)	0	0	1	0.3
SCANNING CODE	F	F	F	F
SCAN RATE (rpm)	NA	NA	NA	NA
PERMISSIBLE EXPOSURE LIMIT (mW/cm2)	cont - 1.0 uncont - 0.2	cont - 1.0 uncont - 0.2	cont - 1.0 uncont - 0.2	cont - 1.0 uncont - 0.2
ESTIMATED HAZARD DISTANCE (ft)	controlled - 0.9 ft uncont. - 2.1 ft	controlled - 0.9 ft uncont. - 2.1 ft	controlled - 1.0 ft uncont. - 2.1 ft	controlled - 7.3 ft uncont. - 16.4 ft
HAZARD CODE(S)	IH	IH	IH	IH
HAZARD CONTROL CODE(S)	NR	NR	NR	NR
HAZARD DISTANCE MEASUREMENTS (ft)	Not Required	Not Required	Not Required	Not Required

PREPARED BY (Name, Grade,AFSC)	REVIEWED BY (Name, Grade, AFSC)
BRUCE A. GOPLIN, Capt, USAF, 43Y3	

PERIODIC CHECKS				
CHECK FREQUENCY	☑ ANNUALLY	☐ QUARTERLY	☐ OTHER _____	
DATE (DD MMM YY)	SIGNS CURRENT	PROCEDURES ADEQUATE	OTHER	CHECKED BY

SYSTEM DIAGRAM, CALCULATIONS, AND MEASUREMENTS

AN/PRC-113

AN/VRC-119

AN/TRC-176

Hazard distance in meters = $[(p_a \times g_n) / (40 \times pi \times PEL)]^{½}$

Hazard distance in feet = $[[(p_a \times g_n) / (40 \times pi \times PEL)]^{½}] \times 3.28$

P_a = average power (watts)

G_{abs} = absolute gain = $10^{G/10}$

PEL = Permissible Exposure Limit in mW/cm^2

Hazard Control Codes

AS-Audible Signal; BA-Rope or Chain Barrier; CA-Check RF Absorbers; CO-Constant Observation; CW-Check Waveguides; FE-Fence; FL-Flashing Lights; LF-Locked Fence; SC-Special Coordination; SO-SOP; WS-Warning Sign; NR-No Control Required; OM-Other

RADIOFREQUENCY EMITTER SURVEY	DATE (DD MMM YY) 10 Dec 03	WORKPLACE IDENTIFIER 0608-CORR-211A	
		BASE Kunsan AB	ORGANIZATION 8 CS
		WORKPLACE Radio Maintenance	
		BLDG NO/LOCATION 952	ROOM/AREA

NAME OF CONTACT	GRADE	POSITION	ORGANIZATION/OFFICE SYMBOL	DUTY PHONE
Webster	TSgt	NCOIC	8 CS/SCMG	782-4919

HAZARD EVALUATION AND CONTROL DATA

NOMENCLATURE	AN/TRC-176	AN/TRC-176	AN/TRC-176	AN/TRC-176
DESCRIPTION	VHF/UHF Transciever	VHF/UHF Transciever	VHF/UHF Transciever	VHF/UHF Transciever
LOCATION OF EMITTERS	Bldg 2901	Bldg 1305	Bldg 2829	Bldg 952
QUANTITY	2	1	1	1
FREQUENCY (MHZ)	116 - 149.9/225 - 399.975	116 - 149.9/225 - 399.975	116 - 149.9/225 - 399.975	116 - 149.9/225 - 399.975
PULSE WIDTH (microsec.)	CW	CW	CW	CW
PULSE REPETITION FREQUENCY (pps)	NA	NA	NA	NA
PEAK POWER (KW)	0.01	0.01	0.01	0.01
ANTENNA CODE				
ANTENNA SIZE (ft.) (hor./ver.)	VHF - .08/5 UHF - 2.1/1.5	VHF - .08/5 UHF - 2.1/1.5	VHF - .08/5 UHF - 2.1/1.5	VHF - .08/5 UHF - 2.1/1.5
ANTENNA GAIN (dB)	.3/.3	.3/.3	.3/.3	.3/.3
SCANNING CODE	F	F	F	F
SCAN RATE (rpm)	NA	NA	NA	NA
PERMISSIBLE EXPOSURE LIMIT (mW/cm2)	cont - 1.0 uncont - 0.2	cont - 1.0 uncont - 0.2	cont - 1.0 uncont - 0.2	cont - 1.0 uncont - 0.2
ESTIMATED HAZARD DISTANCE (ft)	controlled - 1.0 ft uncont. - 2.1 ft	controlled - 1.0 ft uncont. - 2.1 ft	controlled - 1.0 ft uncont. - 2.1 ft	controlled - 1.0 ft uncont. - 2.1 ft
HAZARD CODE(S)	IH	IH	IH	IH
HAZARD CONTROL CODE(S)	NR	NR	NR	NR
HAZARD DISTANCE MEASUREMENTS (ft)	Not Required	Not Required	Not Required	Not Required

PREPARED BY (Name, Grade,AFSC)	REVIEWED BY (Name, Grade, AFSC)
BRUCE A. GOPLIN, Capt, USAF, 43Y3	

PERIODIC CHECKS				
CHECK FREQUENCY	☑ ANNUALLY	☐ QUARTERLY	☐ OTHER _____	
DATE (DD MMM YY)	SIGNS CURRENT	PROCEDURES ADEQUATE	OTHER	CHECKED BY

SYSTEM DIAGRAM, CALCULATIONS, AND MEASUREMENTS

AN/TRC-176

Hazard distance in meters = $[(p_a \times g_n) / (40 \times pi \times PEL)]^{½}$

Hazard distance in feet = $[[(p_a \times g_n) / (40 \times pi \times PEL)]^{½}] \times 3.28$

P_a = average power (watts)

G_{abs} = absolute gain = $10^{G/10}$

PEL = Permissible Exposure Limit in mW/cm^2

Hazard Control Codes

AS-Audible Signal; BA-Rope or Chain Barrier; CA-Check RF Absorbers; CO-Constant Observation; CW-Check Waveguides; FE-Fence; FL-Flashing Lights; LF-Locked Fence; SC-Special Coordination; SO-SOP; WS-Warning Sign; NR-No Control Required; OM-Other

RADIOFREQUENCY EMITTER SURVEY	DATE (DD MMM YY) 10 Dec 03	WORKPLACE IDENTIFIER 0608-CORR-211A	
		BASE Kunsan AB	ORGANIZATION 8 CS
		WORKPLACE Radio Maintenance	
		BLDG NO/LOCATION 952	ROOM/AREA

NAME OF CONTACT	GRADE	POSITION	ORGANIZATION/OFFICE SYMBOL	DUTY PHONE
Webster	TSgt	NCOIC	8 CS/SCMG	782-4919

HAZARD EVALUATION AND CONTROL DATA

NOMENCLATURE	AN/TRC-176	AN/TRC-176	AN/TRC-187	AN/PRC-139
DESCRIPTION	VHF/UHF Transciever	VHF/UHF Transciever	Time of Day Generator	VHF/UHF Transciever
LOCATION OF EMITTERS	Bldg 2548	Bldg 915	Bldg 952	Bldg 2548 (sfs)
QUANTITY	2	1	1	188
FREQUENCY (MHZ)	116 - 149.9/225 - 399.975	116 - 149.9/225 - 399.975	225 - 399.975	30-88/136-174 403-470
PULSE WIDTH (microsec.)	CW	CW	CW	CW
PULSE REPETITION FREQUENCY (pps)	NA	NA	NA	NA
PEAK POWER (KW)	0.01	0.01	0.01	0.002
ANTENNA CODE				
ANTENNA SIZE (ft.) (hor./ver.)	VHF - .08/1.55 UHF - 2.1/1.5	VHF - .08/1.55 UHF - 2.1/1.5	.01/2.75	VHF - .08/5 UHF - 2.1/1.5
ANTENNA GAIN (dB)	.3/.3	.3/.3	1	.3/.3
SCANNING CODE	F	F	F	F
SCAN RATE (rpm)	NA	NA	NA	NA
PERMISSIBLE EXPOSURE LIMIT (mW/cm2)	cont - 1.0 uncont - 0.2	cont - 1.0 uncont - 0.2	cont - 1.0 uncont - 0.2	cont - 1.0 uncont - 0.2
ESTIMATED HAZARD DISTANCE (ft)	controlled - 1.0 ft uncont. - 2.1 ft	controlled - 1.0 ft uncont. - 2.1 ft	controlled - 1.0 ft uncont. - 2.3 ft	controlled - .5 ft uncont. - 1.0 ft
HAZARD CODE(S)	IH	IH	IH	IH
HAZARD CONTROL CODE(S)	NR	NR	NR	NR
HAZARD DISTANCE MEASUREMENTS (ft)	Not Required	Not Required	Not Required	Not Required

PREPARED BY (Name, Grade,AFSC)	REVIEWED BY (Name, Grade, AFSC)
BRUCE A. GOPLIN, Capt, USAF, 43Y3	

PERIODIC CHECKS				
CHECK FREQUENCY	☑ ANNUALLY	☐ QUARTERLY	☐ OTHER _____	
DATE (DD MMM YY)	SIGNS CURRENT	PROCEDURES ADEQUATE	OTHER	CHECKED BY

SYSTEM DIAGRAM, CALCULATIONS, AND MEASUREMENTS

AN/TRC-176

Hazard distance in meters = $[(p_a \times g_n) / (40 \times pi \times PEL)]^{½}$

Hazard distance in feet = $[[(p_a \times g_n) / (40 \times pi \times PEL)]^{½}] \times 3.28$

P_a = average power (watts)

G_{abs} = absolute gain = $10^{G/10}$

PEL = Permissible Exposure Limit in mW/cm^2

Hazard Control Codes

AS-Audible Signal; BA-Rope or Chain Barrier; CA-Check RF Absorbers; CO-Constant Observation; CW-Check Waveguides; FE-Fence; FL-Flashing Lights; LF-Locked Fence; SC-Special Coordination; SO-SOP; WS-Warning Sign; NR-No Control Required; OM-Other

RADIOFREQUENCY EMITTER SURVEY	DATE (DD MMM YY) 10 Dec 03	WORKPLACE IDENTIFIER 0608-CORR-211A	
		BASE Kunsan AB	ORGANIZATION 8 CS
		WORKPLACE Radio Maintenance	
		BLDG NO/LOCATION 952	ROOM/AREA

NAME OF CONTACT	GRADE	POSITION	ORGANIZATION/OFFICE SYMBOL	DUTY PHONE
Webster	TSgt	NCOIC	8 CS/SCMG	782-4919

HAZARD EVALUATION AND CONTROL DATA

NOMENCLATURE	AN/TRC-207			
DESCRIPTION	VHF/UHF Transciever			
LOCATION OF EMITTERS	Tactical			
QUANTITY	2			
FREQUENCY (MHZ)	30-88/136-174 403-470			
PULSE WIDTH (microsec.)	CW			
PULSE REPETITION FREQUENCY (pps)	NA			
PEAK POWER (KW)	0.002			
ANTENNA CODE	WH			
ANTENNA SIZE (ft.) (hor./ver.)	1.5, 3, 4			
ANTENNA GAIN (dB)	0			
SCANNING CODE	F			
SCAN RATE (rpm)	NA			
PERMISSIBLE EXPOSURE LIMIT (mW/cm2)	cont - 1.0 uncont - 0.2			
ESTIMATED HAZARD DISTANCE (ft)	controlled - 0.4 ft uncont. - 0.9 ft			
HAZARD CODE(S)	IH			
HAZARD CONTROL CODE(S)	NR			
HAZARD DISTANCE MEASUREMENTS (ft)	Not Required			

PREPARED BY (Name, Grade,AFSC)	REVIEWED BY (Name, Grade, AFSC)
BRUCE A. GOPLIN, Capt, USAF, 43Y3	

PERIODIC CHECKS				
CHECK FREQUENCY	☑ ANNUALLY	☐ QUARTERLY	☐ OTHER _____	
DATE (DD MMM YY)	SIGNS CURRENT	PROCEDURES ADEQUATE	OTHER	CHECKED BY

SYSTEM DIAGRAM, CALCULATIONS, AND MEASUREMENTS

AN/TRC-207

Hazard distance in meters = $[(p_a \times g_n) / (40 \times pi \times PEL)]^{½}$

Hazard distance in feet = $[[(p_a \times g_n) / (40 \times pi \times PEL)]^{½}] \times 3.28$

P_a = average power (watts)

G_{abs} = absolute gain = $10^{G/10}$

PEL = Permissible Exposure Limit in mW/cm^2

Hazard Control Codes

AS-Audible Signal; BA-Rope or Chain Barrier; CA-Check RF Absorbers; CO-Constant Observation; CW-Check Waveguides; FE-Fence; FL-Flashing Lights; LF-Locked Fence; SC-Special Coordination; SO-SOP; WS-Warning Sign; NR-No Control Required; OM-Other

RADIOFREQUENCY EMITTER SURVEY	DATE (DD MMM YY) 12 Dec 03	WORKPLACE IDENTIFIER	0608 FAAM 240A
		BASE: Kunsan AB	ORGANIZATION: 8 MXS
		WORKPLACE: Precision Guided Munitions (PGM)	
		BLDG NO/LOCATION: 2845	ROOM/AREA:

NAME OF CONTACT	GRADE	POSITION	ORGANIZATION/OFFICE SYMBOL	DUTY PHONE
Morgan	MSgt	PGM Support NCOIC	8 MXS/MXMWPM	782-4381

HAZARD EVALUATION AND CONTROL DATA

NOMENCLATURE	AGM-130			
DESCRIPTION	AGM-130 Guided Missile tested with the AN/GJM-65 Missile Test Set			
LOCATION OF EMITTERS	Missile			
QUANTITY	Classified			
FREQUENCY (MHZ)	Classified			
PULSE WIDTH (microsec.)	Classified			
PULSE REPETITION FREQUENCY (pps)	Classified			
PEAK POWER (KW)	Classified			
ANTENNA CODE	Classified			
ANTENNA SIZE (ft.) (hor./ver.)	Classified			
ANTENNA GAIN (dB)	Classified			
SCANNING CODE	Classified			
SCAN RATE (rpm)	Classified			
PERMISSIBLE EXPOSURE LIMIT (mW/cm2)	cont - 10 uncont - 2.8			
ESTIMATED HAZARD DISTANCE (ft)	NA			
HAZARD CODE(S)	DL			
HAZARD CONTROL CODE(S)	CA			
HAZARD DISTANCE MEASUREMENTS (ft)	Not Required			

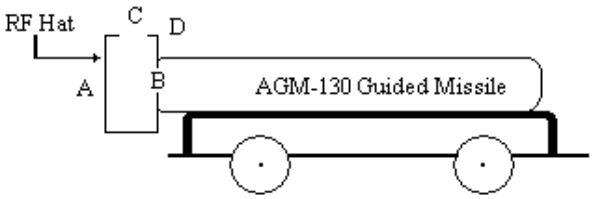
PREPARED BY (Name, Grade,AFSC)	REVIEWED BY (Name, Grade, AFSC)
BRUCE A. GOPLIN, Capt, USAF, 43Y3	

PERIODIC CHECKS

CHECK FREQUENCY ☑ ANNUALLY ☐ QUARTERLY ☐ OTHER _____

DATE (DD MMM YY)	SIGNS CURRENT	PROCEDURES ADEQUATE	OTHER	CHECKED BY

SYSTEM DIAGRAM, CALCULATIONS, AND MEASUREMENTS



Location	Measurement in mW/cm^2
A. Directly behind RF hat	< 0.1
B. Right side of RF hat and AGM-130, 4" to 8"	0.1 – 0.4
C. Top side of RF hat and AGM-130, 4" to 10"	0.2
D. Left side of RF hat and AGM-130, 4" to 8"	0.6 – 1.8

The AN/GJM-65 missile test set is used to test the AGM-130 guided missile. An RF hat (also called a test set coupler) is attached to the AGM-130 guided missile to prevent RF emission during routine test procedures. Note that the use of a test coupler is required by the T.O. The test coupler adequately controls RF emission well below the PEL. Technicians normally stand approximately 5 to 8 feet away from the point of RF emission.

Hazard Control Codes

AS-Audible Signal; BA-Rope or Chain Barrier; CA-Check RF Absorbers; CO-Constant Observation; CW-Check Waveguides; FE-Fence; FL-Flashing Lights; LF-Locked Fence; SC-Special Coordination; SO-SOP; WS-Warning Sign; NR-No Control Required; OM-Other

RADIOFREQUENCY EMITTER SURVEY	DATE (DD MMM YY) 11 Dec 03	WORKPLACE IDENTIFIER	0608-FAXX-305A
		BASE: Kunsan AB, ROK	ORGANIZATION: 43rd Air Defense Artillery
		WORKPLACE: Echo Patriot Battery	
		BLDG NO/LOCATION	ROOM/AREA

NAME OF CONTACT	GRADE	POSITION	ORGANIZATION/OFFICE SYMBOL	DUTY PHONE
Weston	CW-02		Echo Battery	782-7076

HAZARD EVALUATION AND CONTROL DATA

NOMENCLATURE	AN/MPQ-65	AN/TPX-46(v)7		
DESCRIPTION	Patriot phased-array Radar	Interrogator		
LOCATION OF EMITTERS	Various	Various		
QUANTITY	1	1		
FREQUENCY (MHZ)	Classified	Classified		
PULSE WIDTH (microsec.)	Classified	Classified		
PULSE REPETITION FREQUENCY (pps)	Classified	Classified		
PEAK POWER (KW)	Classified	Classified		
ANTENNA CODE	PA	Classified		
ANTENNA SIZE (ft.) (hor./ver.)	Classified	Classified		
ANTENNA GAIN (dB)	Classified	Classified		
SCANNING CODE	E	E		
SCAN RATE (rpm)	Classified	Classified		
PERMISSIBLE EXPOSURE LIMIT (mW/cm2)	0.2	0.2		
ESTIMATED HAZARD DISTANCE (ft)	120m front, 2 m at sides and back	120m front, 2 m at sides and back		
HAZARD CODE(S)	GH	GH		
HAZARD CONTROL CODE(S)	FE, SO,WS	FE, SO,WS		
HAZARD DISTANCE MEASUREMENTS (ft)	See back page	See back page		

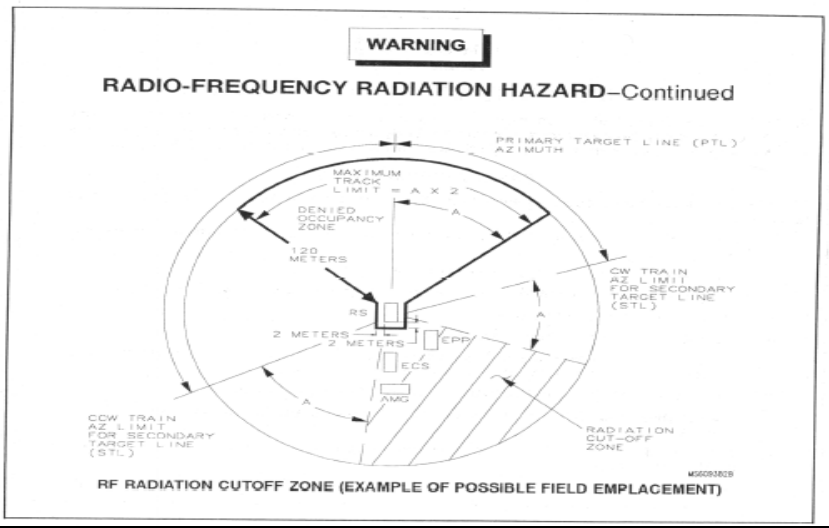
PREPARED BY (Name, Grade,AFSC)	REVIEWED BY (Name, Grade, AFSC)
BRUCE A. GOPLIN, Capt, USAF, 43Y3	

PERIODIC CHECKS				
CHECK FREQUENCY	☑ ANNUALLY	☐ QUARTERLY	☐ OTHER _____	
DATE (DD MMM YY)	SIGNS CURRENT	PROCEDURES ADEQUATE	OTHER	CHECKED BY

SYSTEM DIAGRAM, CALCULATIONS, AND MEASUREMENTS

AN/MPQ-65 & AN/TPX-46(v)7

TM 9-1430-601-10-1



During the survey, the PEL was exceeded at approx. six feet at the front sides and at approx. 20 feet directly in front of the radar at a height of six feet. Note that depending on operator settings, the potential hazard distance can vary significantly. Phased-array settings are classified. RFR hazard distances established in T.M. 9-1430-601-10-1 are therefore followed. The site is controlled at all times. See RFR hazard diagram. (120 meters in front, 2 meters on sides and back).

Hazard Control Codes

AS-Audible Signal; BA-Rope or Chain Barrier; CA-Check RF Absorbers; CO-Constant Observation; CW-Check Waveguides; FE-Fence; FL-Flashing Lights; LF-Locked Fence; SC-Special Coordination; SO-SOP; WS-Warning Sign; NR-No Control Required; OM-Other

RADIOFREQUENCY EMITTER SURVEY	DATE (DD MMM YY) 11 Dec 03	WORKPLACE IDENTIFIER 0608-FAXX-304A	
		BASE Kunsan AB, ROK	ORGANIZATION 43rd Air Defense Artillery
		WORKPLACE Foxtrot Patriot Battery	
		BLDG NO/LOCATION	ROOM/AREA

NAME OF CONTACT	GRADE	POSITION	ORGANIZATION/OFFICE SYMBOL	DUTY PHONE
Olson	CW-02		Foxtrot Battery	782-5834/7209

HAZARD EVALUATION AND CONTROL DATA

NOMENCLATURE	AN/MPQ-65	AN/TPX-46(v)7		
DESCRIPTION	Patriot phased-array Radar (PAC 3)	Interrogator		
LOCATION OF EMITTERS	Various	Various		
QUANTITY	1	1		
FREQUENCY (MHZ)	Classified	Classified		
PULSE WIDTH (microsec.)	Classified	Classified		
PULSE REPETITION FREQUENCY (pps)	Classified	Classified		
PEAK POWER (KW)	Classified	Classified		
ANTENNA CODE	PA	Classified		
ANTENNA SIZE (ft.) (hor./ver.)	Classified	Classified		
ANTENNA GAIN (dB)	Classified	Classified		
SCANNING CODE	E	E		
SCAN RATE (rpm)	Classified	Classified		
PERMISSIBLE EXPOSURE LIMIT (mW/cm2)	0.2	0.2		
ESTIMATED HAZARD DISTANCE (ft)	120m front, 2 m at sides and back	120m front, 2 m at sides and back		
HAZARD CODE(S)	GH	GH		
HAZARD CONTROL CODE(S)	FE, SO,WS	FE, SO,WS		
HAZARD DISTANCE MEASUREMENTS (ft)	See back page	See back page		

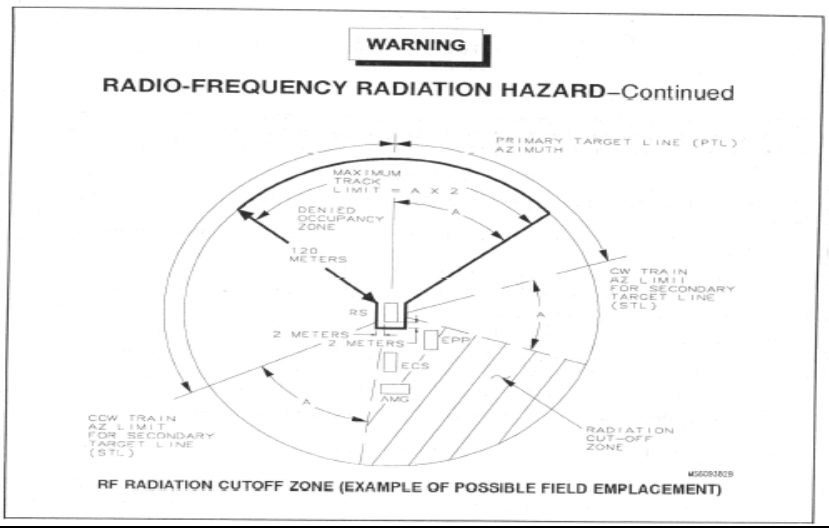
PREPARED BY (Name, Grade,AFSC)	REVIEWED BY (Name, Grade, AFSC)
BRUCE A. GOPLIN, Capt, USAF, 43Y3	

PERIODIC CHECKS				
CHECK FREQUENCY	☑ ANNUALLY	☐ QUARTERLY	☐ OTHER _____	
DATE (DD MMM YY)	SIGNS CURRENT	PROCEDURES ADEQUATE	OTHER	CHECKED BY

SYSTEM DIAGRAM, CALCULATIONS, AND MEASUREMENTS

AN/MPQ-65 & AN/TPX-46(v)7

TM 9-1430-601-10-1



During the survey, the PEL was exceeded at approx. six feet at the front sides and at approx. 20 feet directly in front of the radar at a height of six feet. Note that depending on operator settings, the potential hazard distance can vary significantly. Phased-array settings are classified. RFR hazard distances established in T.M. 9-1430-601-10-1 are therefore followed. The site is controlled at all times. See RFR hazard diagram. (120 meters in front, 2 meters on sides and back).

Hazard Control Codes

AS-Audible Signal; BA-Rope or Chain Barrier; CA-Check RF Absorbers; CO-Constant Observation; CW-Check Waveguides; FE-Fence; FL-Flashing Lights; LF-Locked Fence; SC-Special Coordination; SO-SOP; WS-Warning Sign; NR-No Control Required; OM-Other